UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

MAR 0 8 2013

CERTIFIED MAIL 7012 1010 0001 8097 3772
RETURN RECEIPT REQUESTED

Ms. Stacy Dillard-Spahn, Esq.
Icard, Merrill, Cullis, Timm, Furen & Ginsburg, P.A.
2033 Main Street, Suite 600
Sarasota, Florida 34237

Re: Administrative Compliance Order on Consent, Docket No. CWA-04-2012-5765

Dear Ms. Dillard-Spahn:

Enclosed please find an executed copy of the above-referenced Administrative Compliance Order on Consent (AOC), Docket No. CWA-04-2012-5765. This AOC requires your client to restore 0.37 acre of wetlands and to apply to the U.S. Army Corps of Engineers for authorization under Nationwide Permit 32 for approximately 4.43 acres of dredged and/or fill material to remain in waters of the United States. The U.S. Environmental Protection Agency, Region 4 has retained the original copy for our enforcement files.

Thank you for yours and your client's cooperation in this matter. If you have any questions regarding this AOC, please contact Ms. Tanya Floyd, Associate Regional Counsel, at (404) 562-9813.

Sincerely,

James D. Giattina
Director
Water Protection Division

Enclosure

cc: Ms. Cynthia Ovdenk
U.S. Army Corps of Engineers, Jacksonville District

Mr. Jon Inglehart
South Florida Water Management District, Lower West Coast Service Center

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4

IN THE MATTER OF:	)	
	)	**ADMINISTRATIVE**
Florida Properties III, LLC,	)	**COMPLIANCE ORDER**
	)	**ON CONSENT**
	)	
RESPONDENT.	)	**Docket No.: CWA-04-2012-5765**
	)	

I. Statutory Authority

1. Section 309(a) of the Clean Water Act ("CWA"), 33 U.S.C. § 1319(a), provides that, whenever the U.S. Environmental Protection Agency ("EPA") finds that any person is in violation of any condition or limitation which implements, *inter alia*, Sections 301 and 404 of the CWA, 33 U.S.C. §§ 1311 and 1344, the EPA may issue an order requiring such person to comply with such condition or limitation, and shall specify a time for compliance that the EPA determines to be reasonable.

2. The following Findings of Fact and Determinations of Law are made and this Administrative Compliance Order on Consent ("AOC") is issued pursuant to the authority vested in the EPA by Section 309(a) of the CWA, 33 U.S.C. § 1319(a), as amended. The authority to issue this AOC has been delegated from the Administrator of the EPA to the Regional Administrator of the EPA, Region 4. The Regional Administrator has further delegated this authority to the Director of the Water Protection Division, EPA, Region 4.

II. Findings of Fact and Determinations of Law

For the purposes of this AOC, Florida Properties III, LLC admits the jurisdictional allegations set out below and neither admits nor denies the EPA's findings of fact set out below. The EPA asserts that the following facts are true and substantiated:

3. This AOC pertains to the deposition of dredged and/or fill material into jurisdictional wetlands and waters of the United States including approximately 4.8 acres of mangrove and freshwater wetlands located in St. James City, Pine Island, Lee County, Florida, latitude 26°30'55.635"N, longitude 82°5'0.701"W ("Discharge Area") (see Exhibits A and B). The deposition of dredged and/or fill material occurred during site preparation for residential development.

4. Thieman Enterprises, LLC ("Thieman") and Owen Bay, LLC ("Owen") are limited liability companies duly organized under the laws of the States of Delaware and Florida, respectively, and, as such are persons within the definition set forth under Section 502(5) of the CWA, 33 U.S.C. § 1362(5).

5. Thieman was an owner and/or operator from on or about January 16, 2004, to on or about August 14, 2012, and Owen was an owner/operator from on or about November 3, 2005, to on or about February 23, 2007, of approximately 13.44 acres of property located at 3680 Stringfellow Road in St. James City, Pine Island, Lee County, Florida (the "Site") that contain the Discharge Area.

6. First National Bank of Pennsylvania held a mortgage on the Site property which was defaulted upon by Thieman resulting in a subsequent foreclosure sale of the Site property.

7. Florida Properties III, LLC acquired ownership of the Site, including the Discharge Area, via a foreclosure sale on or about August 14, 2012.

8. Florida Properties III, LLC ("Respondent") is a limited liability company duly organized under the laws of the State of Florida and, as such, is a person within the definition set forth under Section 502(5) of the CWA, 33 U.S.C. § 1362(5).

9. Section 301(a) of the CWA, 33 U.S.C. § 1311(a), prohibits the discharge of pollutants by any person into waters of the United States except in compliance with a permit issued under, *inter alia*, Section 404 of the CWA, 33 U.S.C. § 1344.

10. Commencing on or about September 2, 2005, until development activities were abandoned in approximately 2011, Thieman and/or Owen, and/or those acting on behalf of Thieman and/or Owen, discharged dredged and/or fill material into wetlands on the Site using earth moving machinery during unauthorized activities associated with the preparation of the Site for residential development. Currently, the unauthorized dredged and/or fill material discharged by Thieman and/or Owen remains in waters of the United States.

11. Thieman and/or Owen's unauthorized activities impacted approximately 4.8 acres of mangrove and freshwater wetlands that abut or are adjacent to an unnamed navigable canal connected to Dawson Canal, which is connected to San Carlos Bay, a navigable-in-fact water of the United States.

12. Thieman abandoned its development activities at the Site in approximately 2011 and took no steps to restore the Discharge Area. No further development activities have occurred at the Site since approximately 2011.

13. The discharged dredged and/or fill material, including earthen material deposited at the Discharge Area, are "pollutants" as defined under Section 502(6) of the CWA, 33 U.S.C. § 1362(6).

14. The earth moving machinery employed by Thieman and/or Owen to deposit the dredged and/or fill material at the Discharge Area are "point sources" as defined under Section 502(14) of the CWA, 33 U.S.C. § 1362(14).

15. A "discharge of a pollutant" as defined at Section 502(12)(A) of the CWA, 33 U.S.C. § 1362(12)(A), is any addition of any pollutant to navigable waters from any point source.

16. Thieman and/or Owen's placement of the dredged and/or fill material into the Discharge Area constitutes a "discharge of pollutants" as defined under Section 502(12) of the CWA, 33 U.S.C. § 1362(12).

17. The term "navigable waters" as defined in Section 502(7) of the CWA, 33 U.S.C. § 1362(7), means the waters of the United States, including the territorial seas.

18. The Discharge Area includes "navigable waters" as that term is defined in Section 502(7) of the CWA, 33 U.S.C. § 1362(7).

19. At no time during the discharge of dredged and/or fill material at the Discharge Area from on or about September 5, 2005, to on or about August 14, 2012, did Thieman and/or Owen possess a permit under Section 404 of the CWA, 33 U.S.C. § 1344, authorizing the activities performed by Thieman and/or Owen.

20. Each discharge by Thieman and/or Owen of pollutants into navigable waters without the required permit issued under Section 404 of the CWA, 33 U.S.C. § 1344, is a violation of Section 301(a) of the CWA, 33 U.S.C. § 1311(a).

21. Each day the material discharged by Thieman and/or Owen remains in waters of the United States without the required permit under Section 404 of the CWA, 33 U.S.C. § 1344, constitutes a day of violation of Section 301 of the CWA, 33 U.S.C. § 1311.

22. Therefore, Thieman and Owen have violated Section 301 of the CWA, 33 U.S.C. § 1311, by discharging pollutants into navigable waters without a permit.

23. By entering this AOC, the Respondent is not agreeing to accept any form of liability for the CWA violations associated with the Site property prior to the Respondent's ownership of the Site property.

III. Agreement On Consent

Based on the foregoing **FINDINGS OF FACT AND DETERMINATIONS OF LAW** and under the authority of Section 309(a) of the CWA, (33 U.S.C. §1319(a)), THE RESPONDENT HEREBY AGREES AND CONSENTS TO THE PROVISIONS OF THE PARAGRAPHS BELOW.

24. The Respondent agrees to perform the following actions:

a. Within 30 days of the Effective Date of this AOC, the Respondent shall apply to the U.S Army Corps of Engineers ("Corps") for authorization under Nationwide Permit 32 ("NWP 32"), found at 72 Federal Register 11092 (March 12, 2007), for approximately 4.43 acres of dredged and/or fill material to remain in waters of the United States. If granted,

Respondent shall comply with all requirements and conditions of the NWP 32, including, but not limited to, the purchase of 1.13 wetland credits from the Little Pine Island Mitigation Bank to be used in combination with 1.32 wetland credits that had been previously purchased by Thieman, as specified in the Respondent's Environmental Assessment Report and Restoration/Mitigation Proposal attached hereto and incorporated herein as Exhibit C.

b. The Respondent shall provide a copy of its NWP 32 application to the EPA within ten days of submittal of such to the Corps.

c. EPA shall be provided with a copy of the permit authorization (if granted) within 30 days of issuance. EPA shall also be provided documentation showing compliance with payment of compensatory mitigation within 30 days of such payment.

d. The Respondent shall restore a wetland area comprising approximately 0.37 acre in accordance with Exhibit C and the Respondent's Filter Marsh Planting & Management Guidelines attached hereto and incorporated herein as Exhibit D (collectively referred to as "the Plan").

e. Restoration must be completed within 180 days after the Respondent's receipt of a NWP 32 from the Corps. The Respondent shall notify the EPA of the anticipated construction start date for restoration within 10 days after receipt of NWP 32 authorization. Required planting shall be done within the first planting season following restoration. Within 30 days after completion of restoration, the Respondent shall submit to the EPA a written statement of completion and schedule an inspection of the restored area.

f. The Respondent shall inspect the restored area annually for five years after completion of initial wetland species reestablishment to determine success of the restoration activities. After each inspection, the Respondent shall replace non-viable wetland species with the number of target wetlands species to ensure the Plan's vegetative success criteria of 80 percent is achieved. Wetland species should be replanted during the next vegetative dormant season following the annual inspection. Within 60 days of each of the annual inspections, the Respondent must submit an annual report to the EPA that includes:

1. Date of inspection;
2. Color photographs from the same locations;
3. A quantitative analysis of the number of plantings that survived; and
4. The number of plantings replanted (if required) to reach the 80 percent survival rate.

25. Any documentation required to be submitted in this AOC shall be mailed to the following address:

Ms. Mara Lindsley
U.S. Environmental Protection Agency, Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, S.W.
Wetlands Enforcement Section 15th Floor
Atlanta, Georgia 30303-8960

IV. General Provisions

26. The provisions of this AOC shall apply to and be binding upon the Respondent, its agents, servants, employees, successors, and assigns.

27. If the Site is transferred prior to completion of the requirements of this AOC, such transfer will not absolve the Respondent from the responsibility of implementing and completing the obligations under this AOC or insuring that these requirements have been met. Completion of the requirements of this AOC will remain the responsibility of the Respondent unless the Respondent has assigned all remaining obligations under this AOC to the transferee, who has accepted and assumed the same in a writing approved by the EPA.

28. This AOC is not and shall not be construed to be a permit under the CWA or its implementing regulations. This AOC does not exempt the Respondent from compliance with or the requirements to obtain, any city, county, or state permits or authorizations before proceeding with the restoration activities.

29. The Respondent acknowledges the jurisdiction of EPA to issue this AOC.

30. The Respondent waives any and all claims for relief and otherwise available rights or remedies to judicial or administrative review which the Respondent may have with respect to any issue of fact or law set forth in this AOC, including, but not limited to, any right of judicial review of this AOC under the Administrative Procedure Act 5 U.S.C. §§ 701-706.

31. This AOC does not constitute a waiver, suspension, or modification of the terms and conditions of the CWA or its implementing regulations. Issuance of or compliance with this AOC does not relieve the Respondent from responsibility to comply with all requirements of the CWA, its implementing regulations, and any legal order issued under the CWA or its regulations.

32. Failure to comply with the terms of this AOC may result in Respondent's liability for statutory civil penalties under Section 309(d) of the CWA, 33 U.S.C. § 1319(d), as modified by 40 C.F.R. Part 19. Should EPA commence an action seeking penalties for violations of this AOC, a United States District Court may impose civil penalties if the court determines that the Respondent has violated the CWA and failed to comply with the terms of this AOC.

V. Effective Date

33. This AOC shall become effective upon counsel of Respondent's receipt of the signed AOC.

FOR THE RESPONDENT:

Signature

John J Stolan

Name

Date: 2/8/13

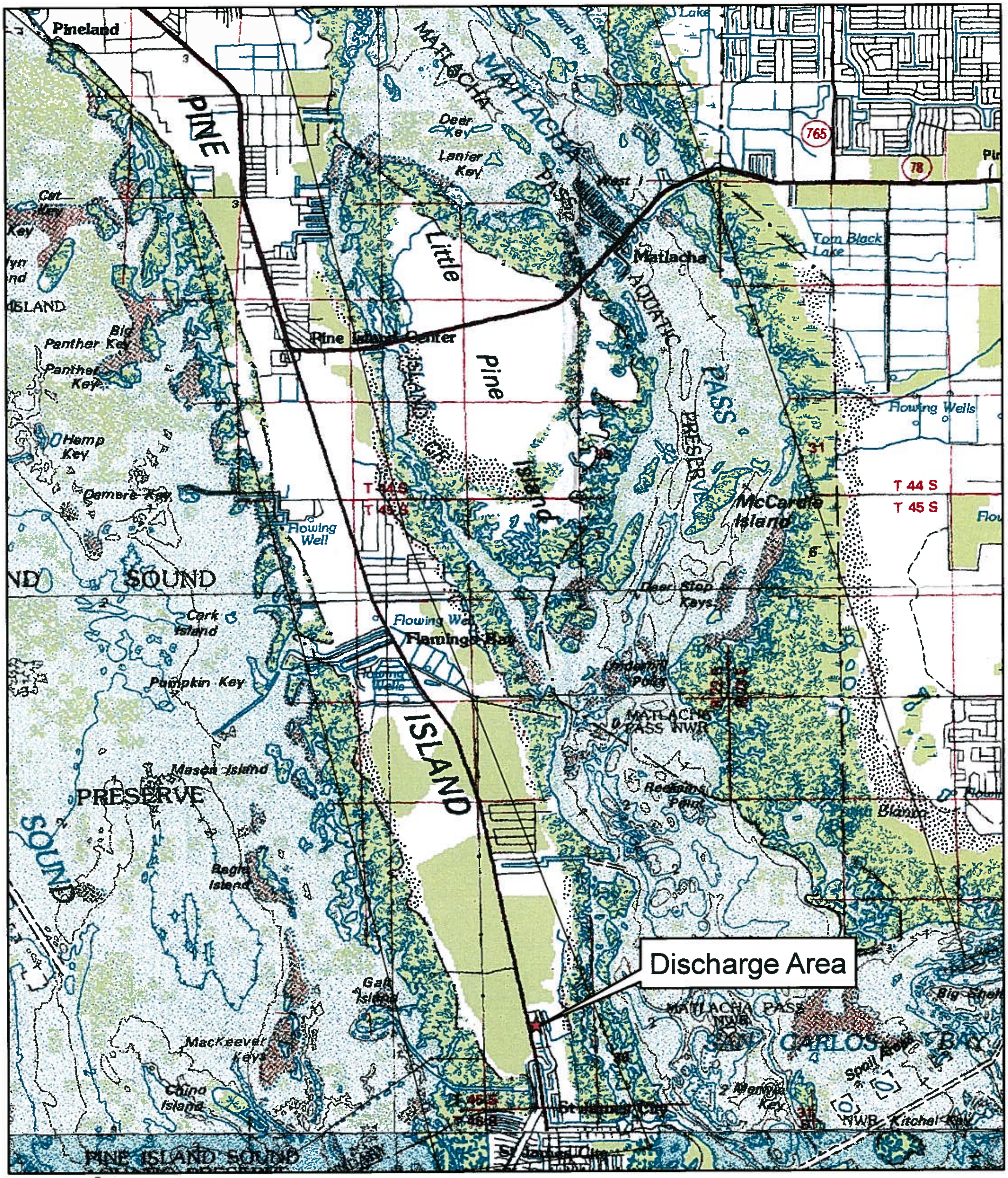
President

Title
Florida Properties III, LLC

FOR THE U.S. ENVIRONMENTAL PROTECTION AGENCY

Date: 3/6/13

James D. Giattina
Director
Water Protection Division
U.S. Environmental Protection Agency
Region 4



N

Florida Properties, LLC

Exhibit A

0 0.45 0.9 Miles

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

N

Florida Properties, LLC

Exhibit B

0 0.035 0.07 Miles

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Exhibit C

Environmental Assessment Report
& EPA Restoration/Mitigation Proposal

EPA Administrative Compliance Order, Docket No. CWA-04-2009-5737

of

Coconut Inlet ±13.45-acre Tract

Stringfellow Road, Section 35, T45E, R22S
Pine Island, Lee County, Florida
ACOE File No. SAJ-2004-9484

January 10, 2013

Engineer:
Avalon Engineering
2503 Del Prado Blvd., Suite 200
Cape Coral, FL 33904
Tel: (239) 573-2077 Fax: (239) 573-2076

by:

Geza Wass de Czege, President/Senior Ecologist

Southern Biomes, Inc. - 1602 Woodford Ave., Ft. Myers, FL 33901
Office: (239) 334-6766 Fax: (239) 337-5028

Southern Biomes, Inc.
Division of Environmental Services
1602 Woodford Ave., Ft. Myers, FL 33901
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BASIS OF REVIEW FOR ENVIRONMENTAL CRITERIA REQUIED FOR THE ARMY CORP OF ENGINEERS

1.0 PROPERTY LOCATION & DESCRIPTION: The subject property is located on the east side of Stringfellow Road. The property is bound by Stringfellow Road on the west, development to the south, similarly forested and open land to the north, and a navigable canal to the east. Since the original field investigations, the entire property, with the exception of the canal fringe and the mangrove dominated wetlands, the entire property has been harvested of the melaleuca and slash pines for commercial mulch, and then cleared of the remaining exotic vegetation after obtaining County and Water Management District permits. Because of the clearing within jurisdictional wetlands without a permit, a cease and desist order was issued by the ACOE in October 2005, with an Administrative Compliance Order issued by EPA on April 2009. The following provides a description of the subject property prior to the clearing activities, with information and documentation for the completion of an application for an after the fact permit.

VEGETATION MAP: A map of the vegetation associations, with the Florida Land Use and Cover Classification System (FLUCCS) codes, is provided on an aerial photograph, and depict the FLUCCS habitats prior to any clearing activities. Currently all vegetation has been cleared with the exception of the mangrove wetlands (FLUCCS 630).

VEGETATION INVENTORY: A brief description and dominant canopy, midstory, and ground cover are listed according to habitat types identified on site.

Jurisdictional Wetlands (4.80 acres):

The subject property contains five jurisdictional wetland communities. Two areas of melaleuca forested wetlands (FLUCCS code 424W) are located in the northern portion of the property, continuing off-site into the adjacent property to the north, adding only 0.25 acres additional wetlands, and are considered isolated. A mangrove-Australian pine wetland (FLUCCS code 630AP) and mangrove wetland (FLUCCS code 630) are located in the central portion of the subject property, which drains stormwater run-off through the property, into the canal, from a culvert under Stringfellow Road. A melaleuca wetland area (FLUCCS 424CW) is centrally located on the property, directly south of the mangrove-Australian pine wetland. An isolated melaleuca-pine wetland (FLUCCS 424PW) is located within the southern third of the site. A more specific description of each vegetative community and strata is listed on the following pages.

Melaleuca Wetlands - 424W: 1.24 acres is composed of two areas located within the northern portion of the subject property. The canopy and subcanopy consists of approximately 98% melaleuca and 2% scattered cabbage palm, Brazilian pepper, wax myrtle, myrsine, slash pine, and occasional saw palmetto clusters. The groundcover consists of approximately 98% leaf litter with scattered swamp fern, *Juncus*, and other associated wetland plants.

Melaleuca Forest – 424CW: 1.83 acres consist primarily of an area located adjacent to, and south of, the mangrove-Australian pine wetland, that consists of >75% melaleuca invasion with scattered saw palmetto clusters and cabbage palm.

Melaleuca-Pine Forest - 424PW: 1.18 acres consist of one area located in the northern portion of the subject property. This community has 50-75% melaleuca invasion with slash pine and scattered saw palmetto. The groundcover consists of >75% leaf litter.

Mangrove Dominated Wetland - 630: 0.18 acres consist of a tidal wetland located in the central portion of the subject property, on the eastern end of a flowway running from the canal to a culvert under Stringfellow Road. The canopy and subcanopy consists of white mangrove, buttonwood, cabbage palm, and myrsine, with exotics such as Australian pine, melaleuca, and Brazilian pepper, along the fringe. The groundcover consists of leaf litter, leather fern, ox-eye daisy, and *Juncus*.

Australian Pine Dominated Wetland - 630AP: 0.37 acres consist of an area located within the central portion of the subject property, running from the tidal wetland (FLUCCS 630) to a culvert under Stringfellow Road. The canopy and subcanopy consists of Australian pine, widely scattered white mangrove, buttonwood, cabbage palm, melaleuca, Brazilian pepper, and myrsine. The groundcover consists of heavy leaf litter, leather fern, and swamp fern.

Upland Habitats (8.65 acres):

More than 55% of the property is made of Four (4) upland vegetative communities. There are 3.22 acres of pine-melaleuca forest (FLUCCS code 4119), 3.10 acres of Australian pine-pine forest (FLUCCS code 437P) and 1.14 acres of open, undeveloped area (FLUCCS code 194). A more specific description of each vegetative community and strata is listed below.

Open, Undeveloped Area - 194: 1.14 acres are composed of an open, cleared area located along the southern property boundary and associated with a previous developed area. The vegetation consisted primarily of ruderal weeds and grasses.

Pine-Melaleuca Forest - 4119: 3.22 acres consist of two areas located in the southern half and in the northern half of the property. The canopy and subcanopy consists of slash pine, cabbage palm, melaleuca, saw palmetto, wax myrtle, myrsine, and ear-leaf acacia. The groundcover consists of wiregrass, poison ivy, broomsedge, low panicum, paspalum, and chalky bluestem.

Melaleuca-Pine Forest - 424P: 1.19 acres consist of two areas, one area located in the northern portion, and one located in the southern portion of the subject property. This community has 50-75% melaleuca invasion with slash pine and scattered saw palmetto. The groundcover consists of >75% leaf litter.

Australian Pine-Pine Forest - 437P: 3.10 acres consist of two areas located mostly along the canal in the northern and southern portions of the subject property. The canopy and subcanopy vegetation consists of Australian pine, slash pine, melaleuca, cabbage palm, saw palmetto, and ear-leaf acacia. The groundcover is dominated by needle and leaf litter.

Habitat Summary

Code	Upland Habitats	Acres
194	Open, Undeveloped Area >75% exotic	1.14
4119	Pine-Melaleuca Forest <50% exotic	3.22
424P	Melaleuca-Pine Forest >75% exotic	1.19
437P	Australian Pine-Pine Forest >75% exotic	3.10
	TOTAL UPLANDS	**8.65**

	Jurisdictional Wetland Habitats	Acres
424W	Melaleuca Wetland >75% exotic	1.24
424CW	Melaleuca Forest >75% exotic	1.83
424PW	Melaleuca-Pine Forest >75% exotic	1.18
630	Mangrove Wetland <50% exotic	0.18
630AP	Mangrove-Australian Pine Wetland >75%	0.37
	TOTAL JURISDICTIONAL WETLANDS	**4.80**

TOTAL UPLANDS & WETLANDS ±13.45

2.0 Elimination or Reduction of Impacts

Response: A total of **4.80 acres** of jurisdictional wetlands are located on the subject property. Because of the location of the property, and the poor quality of the majority of the wetlands, most of the wetlands are proposed for development. The site is a narrow rectangular parcel, with a dredged canal along the eastern side for the purpose of providing a water access for adjacently owned properties. On site wetlands consisted of dense stands of melaleuca, Australian pine, and/or Brazilian pepper. The project proposes to preserve **0.18 acres** of mangrove wetlands, the only tidally influenced wetlands, as well as restore **0.10 acres** of Melaleuca wetlands (424CW) and **0.09 acres** of Australian pine wetlands (630AP) as part of a larger filter marsh to restore connectivity for previous water flow from Stringfellow Road to the canal, through a marsh system that mimics natural conditions, while providing water quality component. The remaining **4.43 acres** of disturbed wetlands will be impacted by the proposed project. The disturbed wetlands are completely isolated by existing residential development, roads and canals, and provide minimal environmental function that could be better mitigated by maintaining appropriate on-site water management through an approved stormwater management system, and providing off-site wetland habitat compensation through an approved mitigation bank.

Table 2a: Jurisdictional Wetland Habitat Impact Analysis

FLUCCS Code	Wetland I.D.	Habitat Description	Total Acres	Wetland Impact	Wetlands Preserved	% Impacted
424CW	W-d	Melaleuca Forest	1.83	1.73	0.10	95%
424PW	W-e	Melaleuca-Pine Forest	1.18	1.18	0.00	100%
424W	W-a	Melaleuca Wetland	0.04	0.04	0.00	100%
424W	W-b	Melaleuca Wetland	1.20	1.20	0.00	100%
630	W-d	Mangrove Wetland	0.18	0.00	0.18	0%
630AP	W-d	Mangrove-Australian Pine Wetland	0.37	0.28	0.09	76%
		TOTAL WETLANDS	**4.80**	**4.43**	**0.37**	**93%**

There are **4.80 acres** of Federal jurisdictional wetlands, of which **4.43 acres** will be impacted. The impacted wetlands have >75% exotic invasion of either melaleuca or Australian pine, with the majority having >95% invasion. Mitigation was assessed by the Functional Assessment procedure designed specifically for determining mitigation at the Little Pine Island Mitigation Bank (LPIMB), and pre development impacts were assessed for impacts to jurisdictional wetlands. A small 0.25 acre herbaceous wetland within an off-site cleared residential lot to the north has been included, and will be mitigated for secondary impact, because the proposed project will isolate it and reduce its size.

Table 2b: Jurisdictional Wetland Habitat Impact Assessment Per Wetland Area

FLUCCS Code	Wetland I.D.	Habitat Description	Total Acres	Wetland Impact	Wetlands Preserved	% Impacted
424W	W-a	Melaleuca Wetland (>75% exotic)	0.04	0.04	0.00	100%
424W	W-b	Melaleuca Wetland (>75% exotic)	1.20	1.20	0.00	100%
424CW	W-d	Melaleuca Forest (>75% exotic)	1.83	1.73	0.10	95%
630	W-d	Mangrove Wetland (<50% exotic	0.18	0.00	0.18	0%
630AP	W-d	Mangrove-Aust. Pine Wetland (>75%)	0.37	0.28	0.09	76%
		Total Wetland W-d	2.38	2.01	0.37	84%
424PW	W-e	Melaleuca-Pine Forest (>75% exotic)	1.18	1.18	0.00	100%
		TOTAL WETLANDS	**4.80**	**4.43**	**0.37**	**93%**

Table 2c: Off-Site Wetland Secondary Impact Analysis[1]

Code	Habitat	Total Acres	2ndry Impact	Modified	Wetland I.D.
600	Herbaceous Wetland	0.25	0.25	0%	W-a

[1] There are 0.25 additional off-site acres located on the north end of the property which will be secondarily impacted.

2.1 Public Interest Test: In determining whether a regulated activity located in, on, or over surface waters or wetlands is not contrary to the public interest, or if such an activity significantly degrades or is within an Outstanding Florida Water, that the regulated activity is clearly in the public interest, the project shall consider, balance, and address, the following criteria:

1. Public health, safety, or welfare or the property of others
2. Fish and Wildlife and their Habitats
3. Navigation, Water Flow, Erosion and Shoaling
4. Fisheries, Recreation, Marine Productivity
5. Temporary or Permanent Nature
6. Historical and Archaeological Resources
7. Current Condition and Relative Value of Functions

Response: The proposed project has addressed public interest by providing appropriate water management that meets or exceeds all the water quality standards recommended by State and Federal requirements. Although this may not necessarily out perform a natural system, it does provide an appropriate measure of restoration to meet agency water quality requirements. The restoration of water flow from Stringfellow Road to the canal, provides an additional filtration for off-site runoff. Finally, an additional mitigation for impacts to wetlands are approved through a mitigation bank, where wetlands have been restored, and are being managed in perpetuity, as part of a large wetland system which has a greater functional value than any wetlands maintained within developments. In response to these considerations, the project site will have no significant impacts to listed or threatened species or their habitat, marine productivity, historic or archaeological resources, or their relative value of function.

3.0 Mitigation -

Protection of wetlands and other surface waters is preferred to destruction and mitigation due to the temporal loss of ecological value and uncertainty regarding the ability to recreate certain functions associated with these features. Mitigation will be approved only after the applicant has complied with the requirements regarding practicable modifications to eliminate or reduce adverse impacts. In certain cases, mitigation cannot offset impacts sufficiently to yield a permittable project. Such cases often include activities which significantly degrade Outstanding Florida Waters, adversely impact habitat for listed species, or adversely impact those wetlands or other surface waters not likely to be successfully recreated. Applicants are encouraged to consult with permitting agency staff in pre-application conferences or during the application process to identify appropriate mitigation options.

Response: During the permit application review process, mitigation for impacted wetlands will be determined. If there are insufficient on-site mitigation provided, then off-site mitigation will be provided. The following section discusses the mitigation provided.

3.1 Mitigation Proposals -

1. Applicants shall provide reasonable assurance that proposed mitigation will:
   (a) offset adverse impacts due to regulated activities; and
   (b) achieve mitigation success by providing viable and sustainable ecological and hydrological functions.
2. Applicants shall submit detailed plans describing proposed construction, establishment, and management of mitigation areas. These plans shall include the following information, as appropriate for the type of mitigation proposed:

(a) soils map of mitigation area
(b) topographic map of mitigation area
(c) hydrologic features map
(d) current hydrologic conditions
(e) adjacent vegetation communities map
(f) construction drawing details
(g) work schedule for implementation
(h) vegetation planting scheme
(i) source of plants used for mitigation
(j) measures to avoid adverse impacts
(k) management & maintenance plan
(l) monitoring plan & success criteria
(m) exotic and nuisance species control

Response: A total of **4.43 acres** of wetlands will be impacted, including **1.73 acres** of melaleuca forest (424CW), **1.18 acres** of melaleuca-pine forest (424PW), **1.24 acres** of melaleuca wetlands (424W) and **0.28 acres** of mangrove-Australian pine wetlands (630AP). A total of **2.36 credits** are required, with **1.32 credits** already purchased to compensate for impacts assessed under the SFWMD Environmental Permit, leaving **1.04 credits** remaining to be purchased to mitigate the direct wetland impacts. In Addition, the 0.25 acre herbaceous off-site wetland, located within the cleared residential lot to the north, will also be mitigated through the Little Pine Island Mitigation Bank. For the secondary impact, an additional **0.09 credits** will be requiring, totaling **1.13 credits** remaining to be purchased at the Little Pine Island Mitigation Bank. Also, a 0.48 acre filter marsh restoration is proposed for the restoration of a flowway extending from Stringfellow Road, through the mangrove inlet (FLUCCS 630) to the canal. This restored marsh is inclusive of the 0.19 acres of preserved, but disturbed wetlands (0.10 ac. of 424CW and 0.09 ac. of 630AP). The restoration plan is attached with this report.

The following tables show the mitigation availability analysis (3.1a), the off-site wetland secondary impact analysis (3.1b), and the Little Pine Island Mitigation Bank (LPIMB) functional assessment scores (3.1c) for required credits for off-site mitigation.

Table 3.1a: On-Site Wetland Mitigation Availability Analysis

FLUCCS Code	Wetland I.D.	Habitat Description	Total Acres	Wetland Impact	Wetlands Preserved	Wetlands Restoration
424W	W-a	Melaleuca Wetland (>75% exotic)	0.04	0.04	0.00	0.00
424W	W-b	Melaleuca Wetland (>75% exotic)	1.20	1.20	0.00	0.00
424CW	W-d	Melaleuca Forest (>75% exotic)	1.83	1.73	0.00	0.10
630	W-d	Mangrove Wetland (<50% exotic	0.18	0.00	0.18	0.00
630AP	W-d	Mangrove-Aust. Pine Wetland (>75%)	0.37	0.28	0.00	0.09
		Total Wetland W-d	2.38	2.01	0.18	0.19
424PW	W-e	Melaleuca-Pine Forest (>75% exotic)	1.18	1.18	0.00	0.00
		TOTAL WETLANDS	**4.80**	**4.43**	**0.18**	**0.19**
		TOTAL WETLANDS (>75% Exotic)	**4.62**	**4.43**	**0.00**	**0.19[2]**
		TOTAL WETLANDS (<50% Exotic)	**0.18**	**0.00**	**0.18**	**0.00**

Table 3.1b: Off-Site Wetland Impacts & Mitigation Analysis[3]

Code	I.D.	Habitat	Total Acres	Wetland Impact	2ndry Impact	Modified
600	W-a	Herbaceous Wetland (<50% Exotic)	0.25	0.00	0.25	0.00
		TOTAL OFF-SITE WETLANDS	**0.25**	**0.00**	**0.25**	**0.00**

[2] The restoration of the 0.19 acres of exotic invaded wetlands are a portion of a 0.48 acre filter marsh restoration/created area located adjacent to the mangrove wetland (FLUCCS 630).
[3] There are 0.25 additional off-site acres located on the north end of the property which will be secondarily impacted.

Table 3.1c: LPIMB Function Assessment Scores

Pre-development Functional Assessment Scores:

Code	Total Acres	A	B	C	D	E	F	G	H	I	Habitat F'tnl Value	Adjusted Acres
424W-a	0.04	0.3	0.3	0.1	0.3	0.5	0.4	0.3	0.3	0.8	0.37	0.01
600-a	0.25	0.3	0.3	0.1	0.3	0.5	0.4	0.3	0.3	0.8	0.37	0.09[4]
424W-b	1.20	0.6	0.5	0.6	0.6	0.5	0.4	0.5	0.5	0.8	0.56	0.67
424CW-d	1.73	0.5	0.5	0.3	0.4	0.5	0.6	0.5	0.6	0.8	0.52	0.90
630AP-d	0.28	0.5	0.6	0.3	0.6	0.5	0.5	0.6	0.6	1.0	0.58	0.16
424PW-e	1.18	0.5	0.5	0.3	0.5	0.5	0.5	0.5	0.5	0.9	0.52	0.62
	4.43											**2.45**

Habitat Value Lost **2.45**

HABITAT ASSESSMENT CRITERIA CODES:

A= Habitat for Wetland Dependent Species
B= Support of Food Chains
C= Support of Native Plant Populations
D= Maintenance of Biological Integrity
E= Provision of Landscape Heterogeneity
F= Access to Aquatic Refugia
G= Maintenance of Natural Hydrologic Regimes
H= Maintenance of Water Quality
I= Support of Soil Processes

Required mitigation for 424CW @ 1:1 Ratio (freshwater herbaceous wetlands)	0.90
Required mitigation for 600-a @ 1:1 Ratio (freshwater herbaceous wetlands)	0.09[5]
Required mitigation for 424W @ 1:1 Ratio (freshwater herbaceous wetlands)	0.68
Freshwater Herbaceous Credits Required	**1.67**
Required mitigation for 424PW @ 1:1 Ratio (freshwater forested wetlands)	0.62
Required mitigation for 630AP @ 1:1 Ratio (freshwater forested wetlands)	0.16
Freshwater Forested Credits Required	**0.78**
TOTAL CREDITS REQUIRED FOR ON-SITE DIRECT IMPACTS	**2.36**
TOTAL CREDITS REQUIRED FOR OFF-SITE 2ndry IMPACTS	**0.09**
TOTAL CREDITS REQUIRED	**2.45**
Remaining FW Herbaceous Credits Required (1.67 - 1.06 =)	**0.61[6]**
Remaining FW Forested Credits Required (0.78 – 0.26 =)	**0.52**
TOTAL CREDITS NEEDED	**1.13**

[4] The FLUCCS code 600 represents the off-site herbaceous wetlands, to the north of the property that will be secondarily impacted.
[5] The FLUCCS code 600 represents the off-site herbaceous wetlands, to the north of the property that will be secondarily impacted.
[6] Already purchased mitigation credits (1.06 herbaceous & 0.26 SW forested) are subtracted from the total required

3.2 Mitigation Rationale:

A total of **4.43 acres** of wetlands have been impacted, including **1.73 acres** of 424CW[7], **1.18 acres** of 424PW, **1.24 acres** of 424W, and **0.28 acres** of 630AP[8]. To compensate for the direct impacts to these wetlands, **2.36 credits** are required to be purchased from the Little Pine Island Mitigation Bank. Secondary impacts to 0.25 acres of off-site wetlands were also assessed, and mitigated through purchase of 0.09 credits from the Little Pine Island Mitigation Bank.

Compensation for wetland impacts are based on existing conditions, or the site's habitats functional values, as determined by nine criteria provided in the functional assessment procedure designed specifically for the Little Pine Island Mitigation Bank. The criteria are (1) general ***habitat*** condition, (2) how the site fits into the ***food chain*** of the area, (3) ***native plant*** species composition, (4) ***biological integrity***, based on over all conditions, (5) ***landscape heterogeneity*** of the entire area, (6) ***aquatic refugia*** for fish and wildlife, (7) the ***hydrologic regime*** of the area, (8) general ***water quality*** conditions, and, (9) the ***soil processes*** of the site. Since 96% of the wetlands, or 75% of the entire site, was >75%, and in many cases >90%, exotic invaded by dense stands or thickets of melaleuca, Australian pine, and Brazilian pepper, and the property was completely isolated by canals, roads, and residential lots, the overall functional value of individual habitats were rated between 10% to 100% of what would be considered as ideal habitat conditions (see the LPIMB functional assessment scores on the previous page).

Based on the assessment, the 1.73 acres of melaleuca forest (FLUCCS code 424CW) has a functional value of 0.90 acres at 1:1 ratio, requiring **0.90 credits**. The 1.18 acres of melaleuca-pine forest (FLUCCS code 424PW) has a functional value of 0.62 acres at 1:1 ratio, requiring **0.62 credits**. The 1.24 acres of melaleuca wetlands (FLUCCS code 424W) has a combined function value of 0.68 acres at 1:1 ratio, requiring **0.68 credits**. The 0.28 acres of Australian pine wetlands (FLUCCS code 630AP) has a function value of 0.16 acres at 1:1 ratio, requiring **0.16 credits**. Therefore a total of **2.36 credits** will be purchased from the Little Pine Island Mitigation Bank to compensate for the 4.43 acres of direct wetland impacts. An additional **0.09 credits** will be purchased for the 0.25 acres of secondary impacts to off-site wetlands, totaling **2.45 credits.**

On-site restoration will consists of the enhancement and perpetual maintenance of the 0.18 acre mangrove inlet, with the adjoining upland buffers, The restoration of 0.19 acres of disturbed wetlands, as well as an additional 0.29 acre of adjacent disturbed area, to create a filter marsh that will restore drainage from Stringfellow Road to the canal, via the mangrove inlet. (see par. 3.2a below).

[7] 0.10 acres of FLUCCS Code 424cw is being restored as part of a 0.48 acre filter marsh flowway.
[8] 0.09 acres of FLUCCS Code 630AP is being restored as part of a 0.48 acre filter marsh flowway.

3.2a Restoration for Unauthorized Clearing of Wetlands:

Approximately 4.62 acres of wetlands were cleared prior to the approval of the ACOE permit application. A "Cease and Desist" order was issued by the ACOE in October 2005, for the clearing of melaleuca & Australian pine dominated wetlands, including 1.83 acres of melaleuca forested wetlands (FLUCCS 424CW), 1.18 acres of melaleuca invaded pine forest (FLUCCS 424PW), 1.24 acres of melaleuca forest (FLUCCS 424W), and 0.37 acres of Australian Pine/Brazilian pepper leather fern wetland (FLUCCS 630AP).

Compensation for direct impacts by the proposed project, and secondary impacts to off-site wetlands, are provided through the purchase of credits from Little Pine Island Mitigation Bank. To minimize additional impacts and mitigation, a **0.48 acre filter marsh** will be restored in an effort to re-establish the drainage conveyance and provide a wetland system that closely mimics natural conditions, whereby providing water quality improvements that exceed previous drainage conditions that extended from the Stringfellow Road swale, to the on-site mangrove inlet (FLUCCS 630), through a minimally vegetated area, as typically found under Australian pine canopies. The filter marsh will be placed in a conservation easement held by either the SFWMD or Lee County, monitored for at least 5 years, and placed in a perpetual maintenance program to eradicate any exotic and nuisance plants. All trash and debris will be removed from the marsh. A filter marsh restoration and maintenance plan is attached with this report.

3.3 Monitoring Requirements for Mitigation Areas

Applicants shall monitor the progress of mitigation areas until success can be demonstrated. Monitoring parameters, methods, schedules, and reporting requirements will be specified in permit conditions.

Response: All mitigation is provided off-site at the Little Pine Island Mitigation Bank. However, a maintenance and monitoring plan has been provided to keep the preserved wetland, the canal fringe, and the filter marsh (total ±1.48 acre conservation easement) free of exotic vegetation. A management plan is provided for the perpetual maintenance and management of all conservation easements.

3.4 Protection of Mitigation Areas

Applicants shall propose and be responsible for implementing methods that assure that mitigation areas will not be adversely impacted by incidental encroachment or secondary activities which might compromise mitigation success.

Response: Majority of the mitigation is provided off-site at the Little Pine Island Mitigation Bank. The proposed 0.18 acre preserve, the 0.48 acre filter marsh, and the upland buffers, will be protected by structural or vegetated buffers along their fringe to assure that the area will not be adversely impacted by incidental encroachment or secondary activities which might compromise the natural integrity of the areas.

3.5 Mitigation Success

Due to the wide range of types of projects which may be proposed for mitigation, specific success criteria will be determined on a case-by-case basis. Mitigation success will be measured in terms of whether the objectives of the mitigation can be realized. The success criteria to be included in the permit conditions will specify the minimum requirements necessary to attain a determination of success. The mitigation shall be deemed successful when all applicable water quality standards are met, the mitigation area has achieved viable and sustainable ecological and hydrological functions and the specific success criteria contained in the permit are met. If success is not achieved within the timeframe specified within the permit, remedial measures shall be required. Monitoring and maintenance requirements shall remain in effect until success is achieved.

Response: All mitigation is provided off-site at the Little Pine Island Mitigation Bank. However, a maintenance and monitoring plan has been included for the 0.18 acre preserve, the 0.48 acre filter marsh, upland buffers, and canal fringe buffer, to maintain the areas free of exotic vegetation and to insure success of the preserved areas.

3.6 Cost Estimates

For the purposes of determining the amount of financial responsibility that is required by the subsection, the applicant shall submit a detailed written estimate, in current dollars, of the total cost of conducting the mitigation, including any maintenance and monitoring activities...

Response: **0.26** saltwater forested and **1.06** herbaceous freshwater credits have already been purchased for the SFWMD permit, which was issued on June 8, 2005. For the impacts to the Federal jurisdictional wetland impacts, the remaining **1.04 credits** will be purchased at LPIMB. Also, **0.09 credits** will be purchased for secondary impacts to off-site wetlands. Therefore, a total of **1.13 credits** will be required from the LPIMB. A contract from Little Pine Island Mitigation Bank will be provided prior to the issuance of the permit for the additional credits. Since all the mitigation will be through the mitigation bank, the only on-site expenses will be the cost of construction and planting of the filter marsh, doing exotic eradication within the preserve and buffers, and providing a five year maintenance and monitoring program. These costs are detailed below.

Mitigation Description	**Cost**
1. Purchase of 2.45 Credits	
a. 1.06 Herbaceous FW Credits Purchased	N/A
b. 0.26 Forested SW Credits Purchased	N/A
c. 0.61 Herbaceous FW Credits @ $6,500.00 per 0.1ct	$39,650.00
d. 0.52 Forested FW Credits @ $10,000.00 per 0.1ct.	$52,000.00
Total Credits	**$91,650.00**[9]
2. Restoration of Filter Marsh & Maintenance Program	
a. 0.48 acres filter marsh restoration	
i. Survey, Excavation, Construction & Grading	$14,500.00
ii. Buffer and Marsh Planting	9,150.00
Total Restoration	**$23,650.00**
3. Preserve, filter marsh & Buffer Area Annual Maintenance Program	
a. 1.48 acres of exotic eradication & removal	$4,500.00
b. Five year exotic maintenance (6 events)	$9,000.00
c. Five year monitoring reports (7 events)	8,400.00
Total Maintenance	**$21,900.00**
TOTAL ESTIMATED MITIGATION COSTS	**$137,200.00**

[9] Rates for L.P.I.M.B. credits confirmed as of June 11, 2012, and calculated per "0.10 Credit Price".

4.0 Fish, Wildlife, Listed Species and their Habitats: An listed species survey was conducted on February 3, 2004 and on October 15, 2008. On the most recent survey, the temperature was in the mid to high 80s with sunny skies and a light breeze during the survey. The following text provides details of the methodology that will be used and survey results of the cursory endangered species survey.

Listed Species Survey Methodology:

The subject property was field surveyed for endangered species using a modification of the transect line methods established by the Florida Fish and Wildlife Conservation Commission. This methodology is effective in covering 90-95% of the site. The survey uses meandering transect lines at 50' - 150' intervals. The meanders extend into adjoining transect lines to provide a near 100% coverage.

The frequency of the meanders is determined by the ground cover and visibility. More densely vegetated areas receive a greater frequency of meanders, thus decreasing the area between meanders in some habitats to as near as 12'. If the terminus flagging markers of the transect lines are not visible, then flagging tape is attached to vegetation at the outer extent of the transect meanders to mark the coverage area for that transect. The flagging tape assists in maintaining the transect direction, and gauging the frequency of the meanders. Each tape must be visible from the previous meander.

Faunal species which do not lend themselves to the typical transect line survey methodology require an additional method of observation. These species can be best observed by using stalking techniques with periodic ocular scanning with field glasses at frequent intervals along transect lines. The frequency and duration of observations are determined by habitat density, species observed, and the stalking skills of the observer. The ability to blend into the surroundings is a key requirement for success.

Any species observed were noted on an aerial photograph as to location and number of species sighted. Species presence and abundance on a given site cannot be determined for all species listed. Therefore, fauna that are mobile, transient, or deceptive are not always observed during a typical field survey such as required by this application. This is especially true for species abundance. Therefore, the status of each species is listed as to presence and numbers observed, and those species which can be reasonably surveyed for abundance are provided with such data.

The species listed below are species that have been or may be observed on site should the conditions be favorable.

Listed Endangered, Threatened or Species of Special Concern

Upland Species List:

Common Name	Scientific Name	Obs.	Comments
Eastern indigo snake*	***Drymarchon corais couperi***	**no**	**not observed**
gopher tortoise	*Gopherus polyphemus*	no	not observed
gopher frog	*Rana areolata*	no	not observed
merlin (pigeon hawk)	*Falco columarius*	no	not observed
S'eastern American Kestrel	*Falco sparverius paulus*	no	not observed
Eastern kestrel	*Falco sparverius, sparverius*	no	not observed, Transient
Arctic peregrine falcon	*Falco peregrinus tundrius*	no	not observed, Transient
American bald eagle*	***Haliaetus leucocephalus***	**no**	**not observed**
Burrowing owl	*Speotyto cunivularia*	no	not observed
twisted air plant	*Tillandsia flexuosa*	no	not observed
red-cockaded woodpecker	*Picoides borealis*	no	not observed
Florida panther	*Felis concolor coryi*	no	not observed
Big Cypress fox squirrel	*Sciurus niger avicennia*	no	not observed
Florida black bear	*Ursus americanus floridanus*	no	not observed
Curtis Milkweed	*Asclepias curtissii*	no	not observed
Fakahatchee burmannia	*Burmannia flava*	no	has not been observed
satinleaf	*Chrysophyllum olivaeforme*	no	not observed
beautiful pawpaw	*Deeringothamus puichellus*	no	not observed
Florida cootie	*Zamia Floridana*	no	inappropriate habitat

Wetland Species List:

Common Name	Scientific Name	Obs.	Comments
smalltooth sawfish*	***Pristis pectinata***	**no**	**not observed**
American alligator	*Alligator mississippiensis*	no	not observed
gopher frog	*Rana areolata*	no	not observed
marsh hawk (n'thrn harrier)	*Circus cyaneus*	no	not observed
little blue heron	*Egretta caerulea*	no	not observed
snowy egret	*Egretta thula*	no	not observed
tricolored heron	*Egretta tricolor*	no	not observed
white ibis	*Eudocimus albus*	no	not observed
wood stork*	***Mycteria americana***	**no**	**not observed**
snail kite	*Rostrhamus sociabilis*	no	inappropriate habitat
Florida panther	*Felis concolor coryi*	no	not observed
Big Cypress fox squirrel	*Sciurus niger avicennia*	no	not observed
Florida black bear	*Ursus americanus floridanus*	no	not observed
Everglades mink	*Mustela vision evergladensis*	no	not observed
least tern	*Sterna antillarum*	no	not observed
giant leather fern	*Acrostichum spp.*	no	not observed

NOTE: The listed species identified with an " * " and highlighted in **bold** have potential of being in the area, or may inhabit similar habitats as found on the subject property, and therefore have been provided with additional information to confirm its status and whether the project may affect the species.

Habitats Surveyed Per Pre-Clearing FLUCCS Habitats:

Code	Historic Description	Species Observed
411	Pine Flatwoods	-0-
4119	Pine-Melaleuca Flatwoods	-0-
424	Melaleuca Forest	-0-
424W	Melaleuca Wetland	-0-
641	Drainage Ditch/Borrow Pit	-0-
643/424	Pine-Melaleuca Wet Prairie	-0-

Discussion and Conclusion: The site was previously harvested of trees for the production and retail sales of mulch, which included primarily melaleuca and slash pine. A few months later is was grubbed and graded, and has sincere vegetated with herbaceous, ruderal grasses, sedges and weeds. No endangered, threatened, or species of special concern were observed during any of the surveys. There was no evidence of standing water, except for the tidal areas adjacent to the canal, or along the roadside ditch. Although no listed species were observe, the bald eagle, woodstork, eastern indigo snake, and smalltooth sawfish have potential of being affected by the project, and therefore will be discussed in more detail below.

American Bald Eagle (*Haliaetus leucocephalus*): The American bald eagle has been removed from the Federal List of Endangered and Threatened Wildlife and Plants in August of 2007, but still affords protection under the Bald and Golden Eagle Protection Act. The closest eagle nest tree is LE-020, and is located approximately 550 feet west of the property, at Lat. 26 30.87, long. 82 05.14 (see attached Eagle Nest LE-020 Location Map) The nest was first recorded in this location in 2007 nesting season, and last recorded activity was in 2009. However, under the new bald eagle management guidelines, the property is not in the protective zone of bald eagle nest, since the subject property is more than 550 ft. away and across Stringfellow Road. Any new residential homes would be more than 600' from the nest, and no trees will be removed for the proposed development. Therefore, further consultations should not be required.

Wood stork (*Mycteria americana*): The wood stork is listed as endangered by the U.S. Fish and Wildlife Service. Although it has not been observed on the subject property, they have been observed on Pine Island, and nest sites are in Lee County. The nearest recorded wood stork colony exits on the Caloosahatchee River, approximately 18 miles east of the subject property, and therefore is within the 18.6 mile radius of the colony's core foraging area (CFA), therefore placing the project within range of "suitable foraging habitat" (SFH), and a "may affect" status with FWS. However, because the existing habitat is of low quality for foraging wading birds, and only seasonal, during major rain events, the proposed impacts minimal. Also, the proposed restoration of the severely exotic infested wetlands will provide foraging habitat that previously was not available, and a habitat management plan for the herbaceous wetlands will insure seasonal foraging areas. In addition, the off-site mitigation provided within Little Pine Island Mitigation Bank is also within the foraging range of the wood stork colony, and will offset any loss of potential foraging area. Therefore, the project will have no net loss of habitat, and further consultations should not be required.

Eastern Indigo Snake (*Drymarchon corais couperi*): The eastern indigo snake is listed as threatened by the U.S. Fish and Wildlife Service. Although it has not been observed on the subject property, they have been observed on Pine Island, within the areas inhabited by gopher tortoises. The nearest population of gopher tortoises is within a few 100 yards to the west of the subject property, in a saw palmetto scrub habitat. Since indigo snakes have large home ranges, the subject property conceivable could be within their range. However, the property is low, and subject to flooding, there are no tortoise burrows observed on the property, a major highway separates the site from other potential habitat, and the property is located adjacent to existing residential developments and a canal. Therefore, because the subject property is not viable habitat, or marginal at best, is not a potential corridor between other habitats, is somewhat isolated from potential habitats, this project should not be considered a "may affect" status by FWS.

Smalltooth Sawfish (*Pristis pectinata*): The smalltooth sawfish was listed as endangered under the United States Endangered Species Act in 2003. Sawfish are known to use estuaries during their first 2–3 years of life. The subject property is located near estuaries where sawfish have been observed and/or captured during sampling studies within the Pine Island estuaries. Juveniles are likely to inhabit red mangroves, where they use the mangrove prop roots for hiding from predators.

Although there has not been a survey conducted to determine their status within the immediate area of the property, the on-site mangrove wetlands (FLUCCS 630), and the canal margins adjacent to the property, provide minimal exposure to red mangrove prop roots that don't become exposed during low tide, and are therefore too shallow to be considered even marginal habitat for the juvenile sawfish. Therefore, because the subject property and the adjacent canal are not viable habitats, or are marginal at best, this project should not be considered a "may affect" status by FWS, and no further consultations should be required. .

Attachments

Eagle Nest LE-020 Location Map

Located at Lat. 26 30.87, long. 82 05.14, Sec. 35, T45E, R22S, Pine Island, Lee County Florida

Preserve, Buffer & Filter Marsh Annual Maintenance Guidelines:

As per Lee County, WMD and ACOE requirements, all the exotic plants will be eradicated from the preserve area (conservation easement) and maintained free of exotics in perpetuity. The following methodology will be used:

1. Conduct a baseline survey of vegetative representation and percent of exotic species invasion along the entire preserve and buffer area.

2. Manually remove or eradicate all exotic vegetation, including but not limited to Australian pine, melaleuca, Brazilian pepper, ear-leaf acacia, carrotwood, Chinese climbing fern, and downy-rose myrtle, and treat stumps with a recommended herbicide within 15 minutes after cutting.

3. Maintenance will be conducted in perpetuity to ensure that the wetlands and buffer areas are free from exotic vegetation (as currently defined by the Florida Exotic Pest Plant Council) immediately following maintenance and that exotic and nuisance species will constitute no more that 5% of total cover.

4. Maintain a semi-annual exotic plant control the first year and an annual control thereafter, in perpetuity, to treat the exotic vegetation resprouting with an approved herbicide, and manually remove any seedlings. Conduct activities during the winter and spring dry season.

5. Provide the SFWMD, EPA & ACOE with an annual monitoring report for 5 years, including a qualitative narrative describing the vegetation changes and wildlife activities within the mitigation area. Include the following:
   a. Provide five fixed-point photo station panoramic photograph analysis.
   b. Narrative report of exotics re-invasion, and removal success.
   c. Exotic maintenance success data including quantitative data, natural recruitment success, exotic invasion, general condition, and recommendations.
   d. Narrative report of typical and unique wildlife utilization.

7. Mitigation success criteria are as follows:
   a. There is a continual increase in indigenous wetland species composition within the exotic removal areas throughout the five year monitoring period.
   b. The area is maintained, in perpetuity, in such a manor as to ensure that the preserve area will have no more that 2% total coverage of exotic and nuisance plants, as defined by the Florida Exotic Pest Plant Council (including but not limited to melaleuca, Brazilian pepper, Australian pine, ear-leaf acacia, old world climbing fern, downy-rose myrtle, cattails, torpedograss, primrose willow, and carrotwood).

Photo Station Location Map

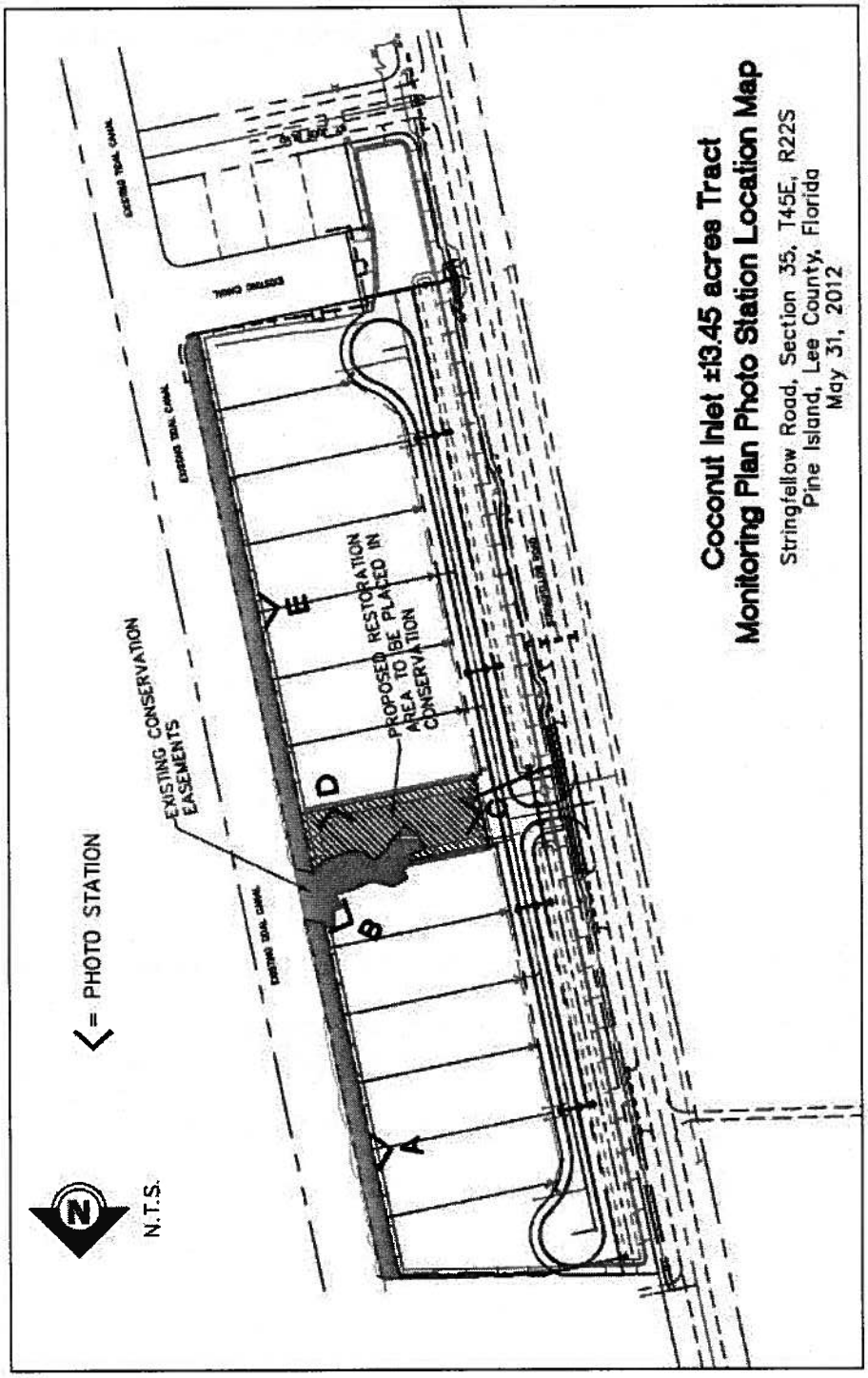

Exhibit D

Coconut Inlet 13.45 ac. Tract

E.P.A. & A.C.O.E. Restoration Plan

Filter Marsh Planting & Management Guidelines

Section 35 T45S R22E, Stringfellow Road.
Pine Island, Lee County, Florida
ACOE File No. SAJ-2004-9484
EPA Docket No. CWA-04-2009-5737

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January 10, 2013

Designed by:
Geza Wass de Czege, Senior Ecologist

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Restoration Flowway Filter Marsh Planting Guidelines

The flowway filter marsh restoration plan has been designed primarily to restore and filter pollutants from off-site drainage extending from the Stringfellow Road drainage ditch to the existing mangrove inlet located on the subject property. The plan provides a planting scheme for the creation of a drainage conveyance and a 0.48 acre filter marsh with vegetated littoral area to provide water quality filtration from roadside drainage. The restoration plantings are separated into two zones: **Buffer**) The buffer fringe consists of the transitional areas from top of bank to one foot above natural grade. Buffering the **Littoral** area from the development area; The **Littoral** area consists from 2.0 ft. up a 4:1 side slope, down to the filter marsh excavation; all of which may be seasonally flooded or saturated. The following provide the guidelines to meet these goals as described.

Restoration Area Planting Scheme (20,910 sq. ft.):

- **Buffer Area (filter marsh fringe);** 5,200 sq. ft. planted with **11** indigenous shrubs (5-10' o.c.) such as wax myrtle and buttonwood, and **1,300** herbaceous plants (2'. o.c.) Sandcord grass (*Spartina bakeri*) Muhly Grass (*Muhlenbergia capillaries)*, sea ox-eye daisy, and others listed for buffer area on the planting list. Additional trees and shrubs are optional, but not to exceed 20% coverage.
- **Littoral Area (side slopes and shelf);** 15,710 sq. ft. planted primarily with **31** white mangrove and buttonwood (clustered 10' o.c.), **126** Leather Fern (*Acrostichum* spp.) and marsh elder *Iva frutescens* (clustered a 5' o.c.), and **3,928** herbaceous plants (2' o.c.), such as smooth cordgrass, saltmeadow cordgrass (*Spartina patens*), Black Needle Rush (*Juncus roemerianus*), and Seashore grass (*Paspalum vaginatum*), and Water-hyssop (*Bacopa* spp.)

Restoration Area Planting Guidelines

1. A seasonal wetland marsh type habitat will make up the majority of the filter marsh system, and will be maintained predominantly as an open marsh habitat, and supplemental plantings shall consist primarily of indigenous herbaceous wetland species that can be easily maintained and periodically trimmed for ease of management. The planting of trees and shrubs will be installed within the filter marsh to provide diversity, perch areas, and nesting habitat. The selected approved indigenous plants are listed for each planting zone in the *Restoration Area Plant List*. The trees and shrubs are to be clustered, and spaced to mimic natural habitat conditions.
2. All planting activities must be supervised by a qualified restoration ecologist with experience in habitat restoration and management.
3. All enhancements will mimic natural habitat condition, without impacting existing desirable trees or shrubs, and minimizing disturbance or damage to groundcover vegetation.
4. Plants are to be selected from the approved Restoration Area Planting List, and planted in a random order to mimic nature. The plant list provides a wide range of tolerances in depth, with trees at least 7 gal., 7-8' tall, small trees 5 gal, min. 6' tall, shrubs & ferns 3 gal., 30-36" tall, and herbaceous plants 1 gal, min.16" tall. Trees and shrubs are not to exceed 20% of total areal coverage.

Restoration Area Plant List

Buffer Area Plant List (5,200 sq. ft.):

- **11** midstory shrubs/small trees min. 6" high, Min. 5 gallon containers, clustered 5-10' on center, not to exceed 20% of the area:
  - 6 Buttonbush (*Cephalanthus sp.)*
  - 5 Wax myrtle *(Myrica cerifera)*
- **1300** groundcover herbaceous plants, min. 16" tall, 1 gal., installed 18-24" on center, over 100% of the exposed areas:
  - 400 Seashore grass (*Paspalum vaginatum*)
  - 600 Sandcord grass (*Spartina bakeri*)
  - 200 Muhly grass (*Muhlenbergia capil.)*
  - 100 Sea oxeye daisy (*Borrichia* spp.)

Littoral Area Plant Selection List (15,710 sq. ft.):

- **31** canopy trees, min. 7 gal, 7-8 foot tall, 1 inch dbh trees, 10' on center, not to exceed 25% of the total area:
  - 20 white mangrove *Laguncularia sp.*
  - 11 Buttonbush (*Cephalanthus sp.)*
- **126** midstory shrubs 30" high, Min. 3 gal. containerized shrubs, clustered 3-5' on center, not to exceed 5% of the area:
  - 100 Leather Fern (*Acrostichum* spp)
  - 26 marsh elder *Iva frutescens*
- **3,928** groundcover herbaceous plants, min. 16" tall, 1 gal., installed 18-24" on center, covering 100% of the exposed areas:
  - 1,500 Seashore grass (*Paspalum vaginatum*)
  - 750 Saltmeadow cordgrass (*Spartina pat.*)
  - 750 Smooth cordgrass (*Spartina alterniflora)*
  - 928 Black needle rush (*Juncus roemerianus*

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Restoration Area Construction and General Maintenance Guidelines

1. All clearing, excavation and planting activities must be supervised by a qualified restoration ecologist with experience in habitat restoration and management.
2. Two weeks prior to any earth moving or clearing activities, the entire area to be cleared, plus a minimum 25' radius outside the proposed area, is to be herbicide treated against exotic and nuisance plants.
3. Install erosion and siltation barriers as required, to minimize turbidity in the mangrove inlet or adjacent canal.
4. All activities requiring mechanical earthmoving or grading equipment are to be conducted during the winter and spring dry season, until the rainy season begins during periods when the ground water level is at least 6" below grade to avoid disturbance of the soil, prevent soil compaction, and minimize rutting of the topsoil.
5. All habitat restoration/creation activities will mimic natural habitat condition, without impacting existing desirable trees or shrubs, and minimizing disturbance or damage to groundcover vegetation associated with the existing mangrove inlet or flowway.
6. Plants are to be selected from the approved *Restoration Area Plant List* and planted in a random order to mimic nature.
7. The buffer fringe will be revegetated with selected species more adapted to transitional habitats and also provide a natural barrier from the development area, as listed in the *Restoration Area Plant List* and spaced to mimic natural habitat conditions.
8. The littoral marsh, which makes up the majority of the area, will consist primarily of indigenous herbaceous wetland species found in the *Restoration Area Plant List.* Any trees and shrubs are to be clustered, and spaced to mimic natural habitat conditions, and not constitute more than 20% of the total areal coverage.
9. Conduct a time zero survey of vegetative representation and submit report to the EPA and ACOE.
10. Maintenance will be conducted in perpetuity to ensure that the wetlands and buffer areas are free from exotic vegetation (as currently defined by the Florida Exotic Pest Plant Council) immediately following maintenance and that exotic and nuisance species will constitute no more that 2% of total cover.
11. Maintain a semi-annual exotic plant control the first two years and an annual control thereafter, in perpetuity, to treat any exotic vegetation resprouting with an approved herbicide, and manually remove any seedlings. Conduct activities during the winter and spring dry season.

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Restoration Area General Maintenance Guidelines (cont.)

12. Provide the EPA & ACOE with an annual monitoring report for 5 years, including a a quantitative and qualitative narrative describing the vegetation changes and wildlife activities within the restoration area. Include the following:
    a) Provide five fixed-point photo station panoramic photograph analysis.
    b) Quantitative analysis of plant survival, with narrative report of general conditions, natural recruitment success, and overall coverage.
    c) Narrative report of exotics re-invasion, and removal success.
    d) Exotic maintenance success data including quantitative data, natural recruitment success, exotic invasion, general condition, and recommendations.
    e) Narrative report of typical and unique wildlife utilization.
13. Restoration success criteria are as follows:
    a) At least 80% survival of the planted species, and that at least 80% total groundcover coverage after the five year monitoring.
    b) There is a continual increase in indigenous wetland species composition throughout the five year monitoring period.
    c) The area is maintained, in perpetuity, in such a manner as to ensure that the filter marsh will have no more that 2% total coverage of exotic and nuisance plants, as defined by the Florida Exotic Pest Plant Council (including but not limited to melaleuca, Brazilian pepper, Australian pine, ear-leaf acacia, downy-rose myrtle, cattails, torpedograss, and primrose willow).